New York State Department of Transportation
Yellow Flag NB2258W021

By: Alex Abreu
Flag Date: October 20, 2022

Superseding Information:
No Flags Superseded

Structure Information

BIN: **1065318**
Feature Carried: 278I278IX2M23027
Feature Crossed: 6TH AVENUE
Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY
County: KINGS
Political Unit: City of NEW YORK
Approximate Year Built: 1962

Posted Load Matches Inventory : Yes
Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation
Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party
Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder
This Bridge is not a Ramp
Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.
Date: October 20, 2022 2:00:00 PM

Of: NYSDOT Region 11

Signature Information

Signature: Alex Abreu, P.E. 099761-1
Date: October 28, 2022

Reviewed By: Robert Kemp
Date: October 28, 2022

Attachments: 9

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 92			
	PR311 - Movable Bearing	17	each

Flagged Condition Description

This Yellow Flag No. NB2258W021 is NEW.

Location: Bearing under Girder G15 on Span 93 side of Pier 92 located within scaffolding platforms installed by contractor (area located above intersection of 53rd Street and 3rd Avenue).

Description:
The bearing under Girder G15 on Span 93 Side at Pier 92 exhibits a sheared off pintel resulting in the girder end resting atop the bearing plate (Photo 5). Due to the sheared off pintel, the end of the girder has shifted downwards slightly which is evident by both guide angles breaking into two pieces at each face with 1" high difference between the guide angles pieces at each face (Photos 6 and 7). There are no additional signs of distress at the end of the girder due to the slight downwards shift. The bearing plate is loose when inspection team hammers but remains in place. The pedestal under the girder exhibits up to 15% section loss for the full height of two out of three stiffener plates (left and right stiffeners) (Photo 8). (refer to Yellow Flag Condition Sketch Photo #2 for more details)

This is a newly flagged condition.

Notes:
1. The girder end above the bearing exhibits section loss for the full height of the web along the guide angle for 12" wide for up to 1/8" deep at the left face and up to 3/16" deep at the right face. The lower web of the girder exhibits 1" diameter corrosion hole approximately 2" from the bottom flange located 19" from the end side of the bearing with 30% section loss surrounding the hole for 1" wide. The bottom flange exhibits up to 25% section loss for the full width of the flange for 24"L. The right side top flange exhibits 50% section loss for 10"L x 4"W at the end of the girder. The left end diaphragm connection plate exhibits up to 50% section loss with 3"H x 2"W corrosion hole at the bottom 5" of the plate. (Photo 9)

2. Adjacent bearing under Girder G14 exhibits 10% section loss to the bearing components with 1/4" pack rust between the masonry plate and pedestal.

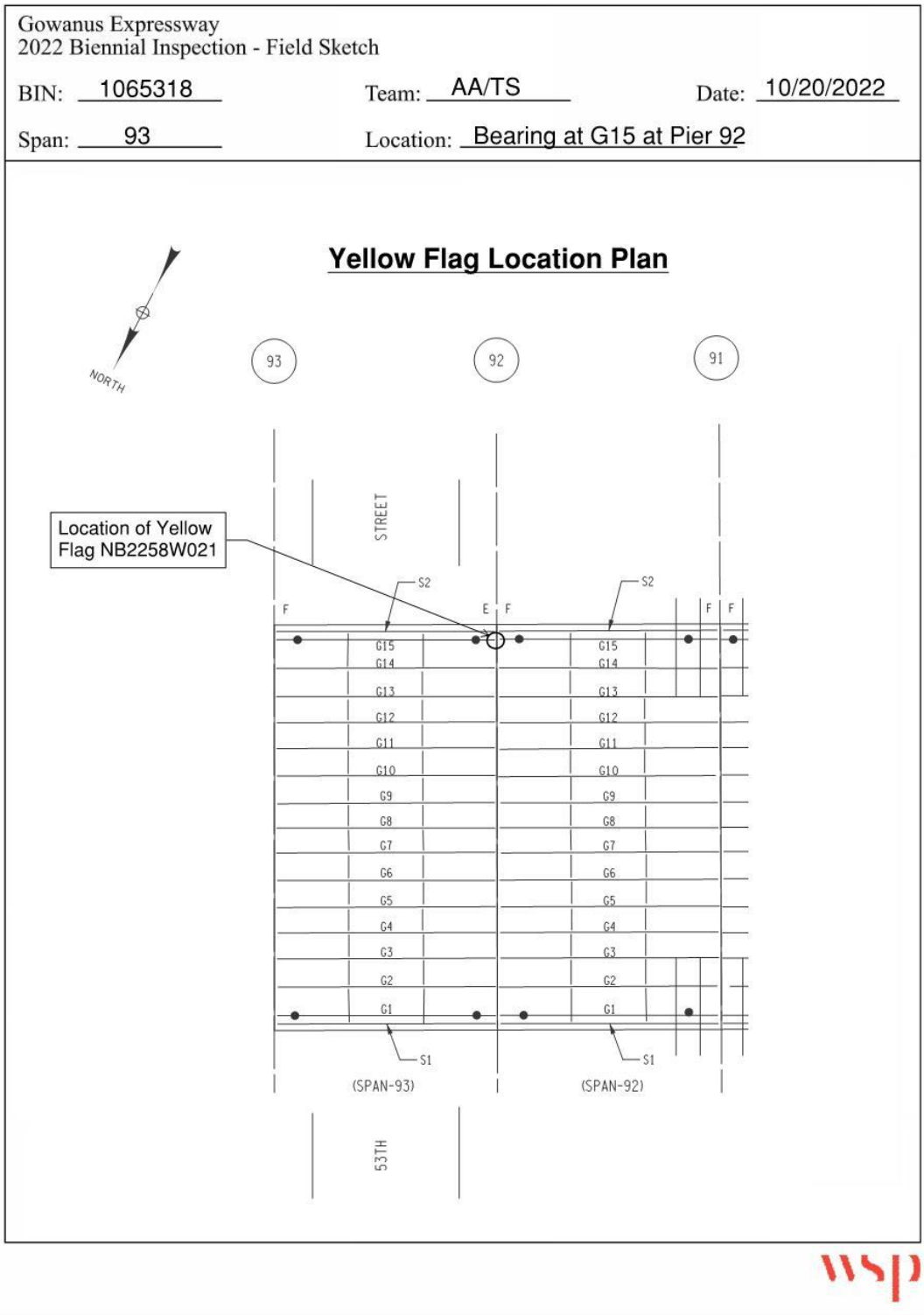
3. Scaffolding platform was installed by contract within span at the time of inspection so single lane closure in the right lane on 3rd Avenue WB between 52nd and 53rd with 60ft bucket truck was used to access platform.

4. Since contractor recently sandblasted the bearings within the platform spans, the underlying issues at the bearing (previously covered up with moderate to heavy corrosion) were able to be inspected and evaluated.

5. The previous 2021 Biennial Report documented the above bearing location as CS3 with the following Condition State note:
Girders G1-G15 and Stringers S1 & S2 sliding bearings exhibit moderate to heavy corrosion around the perimeter of the bearing plates with 10-20% section loss. The guide bars exhibit heavy corrosion throughout. Bearings show no signs of movement and are frozen.

Flag Photographs

Photo Number: **1** Photo Filename: **22_Flag Location Plan.jpg**



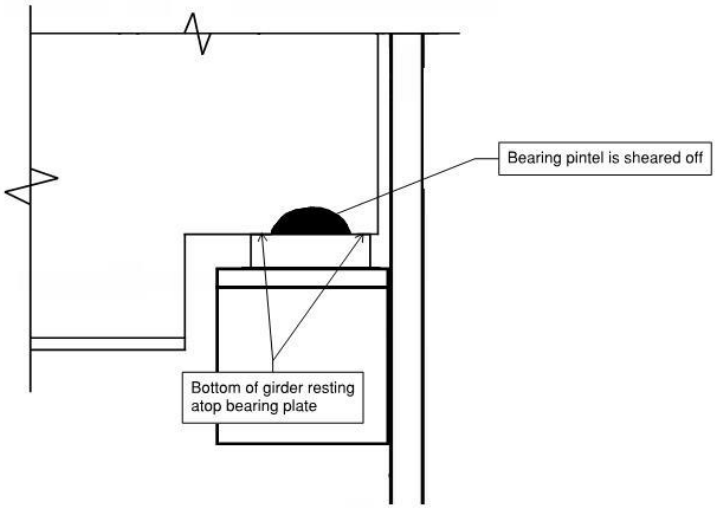
Attachment Description: **Yellow Flag Location Plan**

Photo Number: **2** Photo Filename: **22_Span 93_Bearing B15 at Pier 92_Detail.jpg**

Gowanus Expressway
2022 Biennial Inspection - Field Sketch

BIN: 1065318 Team: AA/TS Date: 10/20/2022

Span: 93 Location: Bearing under G15 at Pier 92



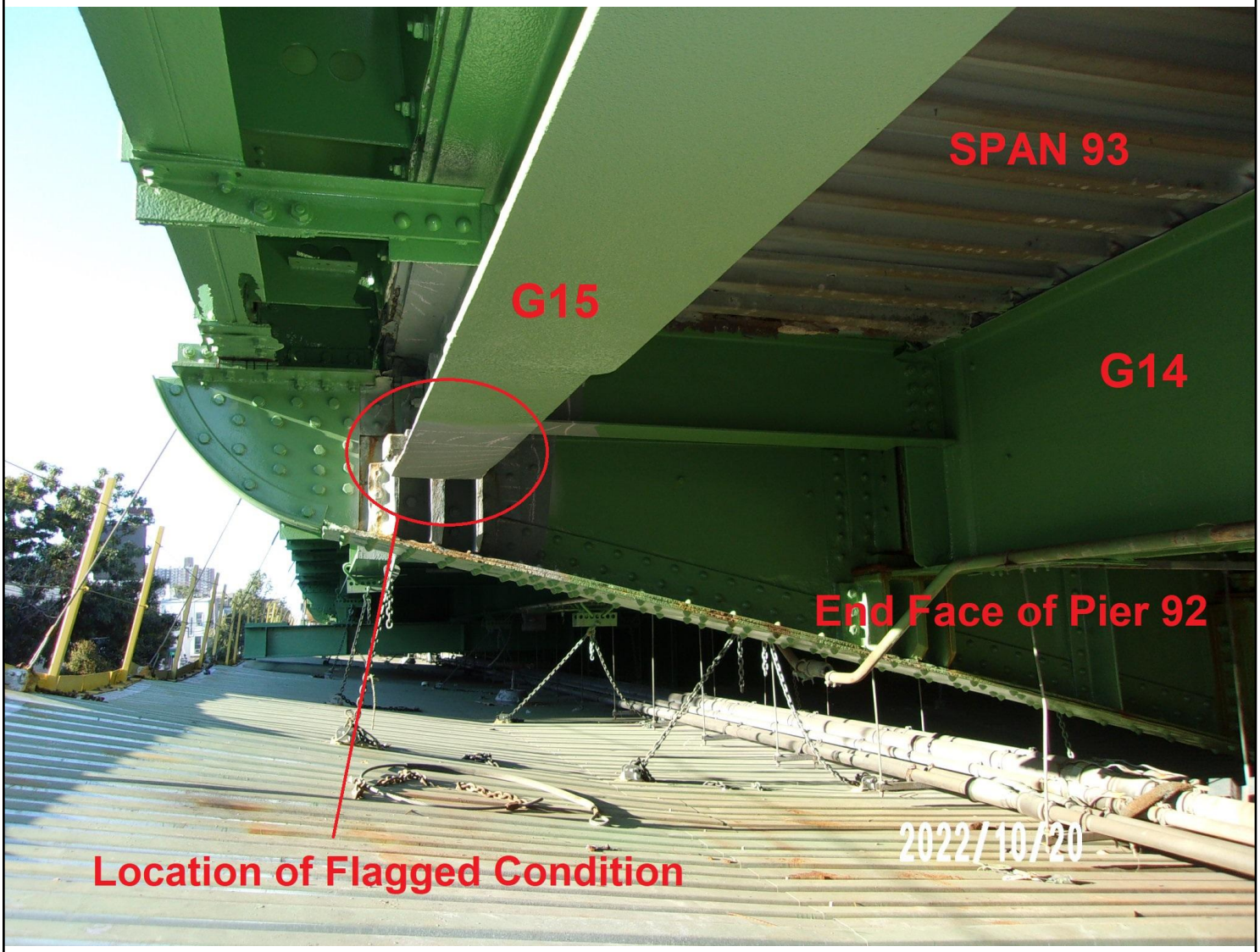
Left Face of Bearing B15

SCALE: N.T.S

Notes:
-The right face of the bearing has similar condition.
-The guide angle at the bearing not shown for clarity purposes.
-The bearing plate is loose but remains in place due to keeper plates.

Attachment Description: **Yellow Flag Condition Sketch**

Photo Number: **3** Photo Filename: **22_113_4291.JPG**



Attachment Description: **General view of the flagged condition at the bearing under Girder G15 on Span 93 side of Pier 92. Looking Begin.**

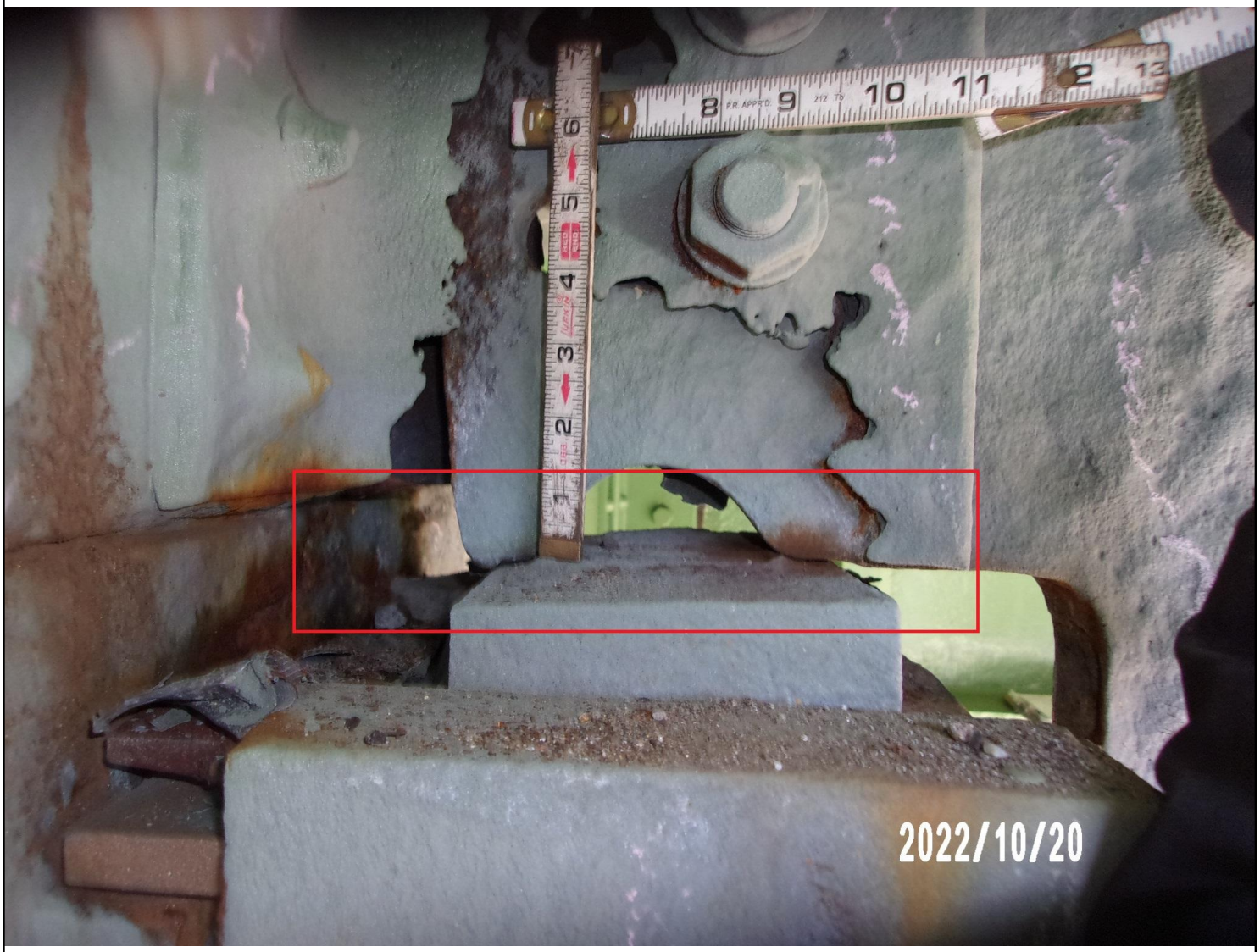
Photo Number: **4** Photo Filename: **22_113_4301.JPG**

Attachment Description: **Close-up general view of the bearing under Girder G15 on Span 93 side of Pier 92. Looking Begin and Right.**

Photo Number: **5** Photo Filename: **22_113_4312.JPG**

Attachment Description: **The right face of the bearing under Girder G15 on Span 93 side of Pier 92. The bearing exhibits a sheared off pintel resulting in the end of the girder resting atop the bearing plate. The bearing plate is loose when inspection team hammers but remains in place. Looking Left.**

Photo Number: **6** Photo Filename: **22_113_4318.JPG**



Attachment Description: **The right face of the bearing under Girder G15 on Span 93 side of Pier 92. The end of the girder has shifted downwards slightly which is evident by guide angle breaking into two pieces at the face of the girder with 1" high difference between the guide angle pieces. Looking Left.**

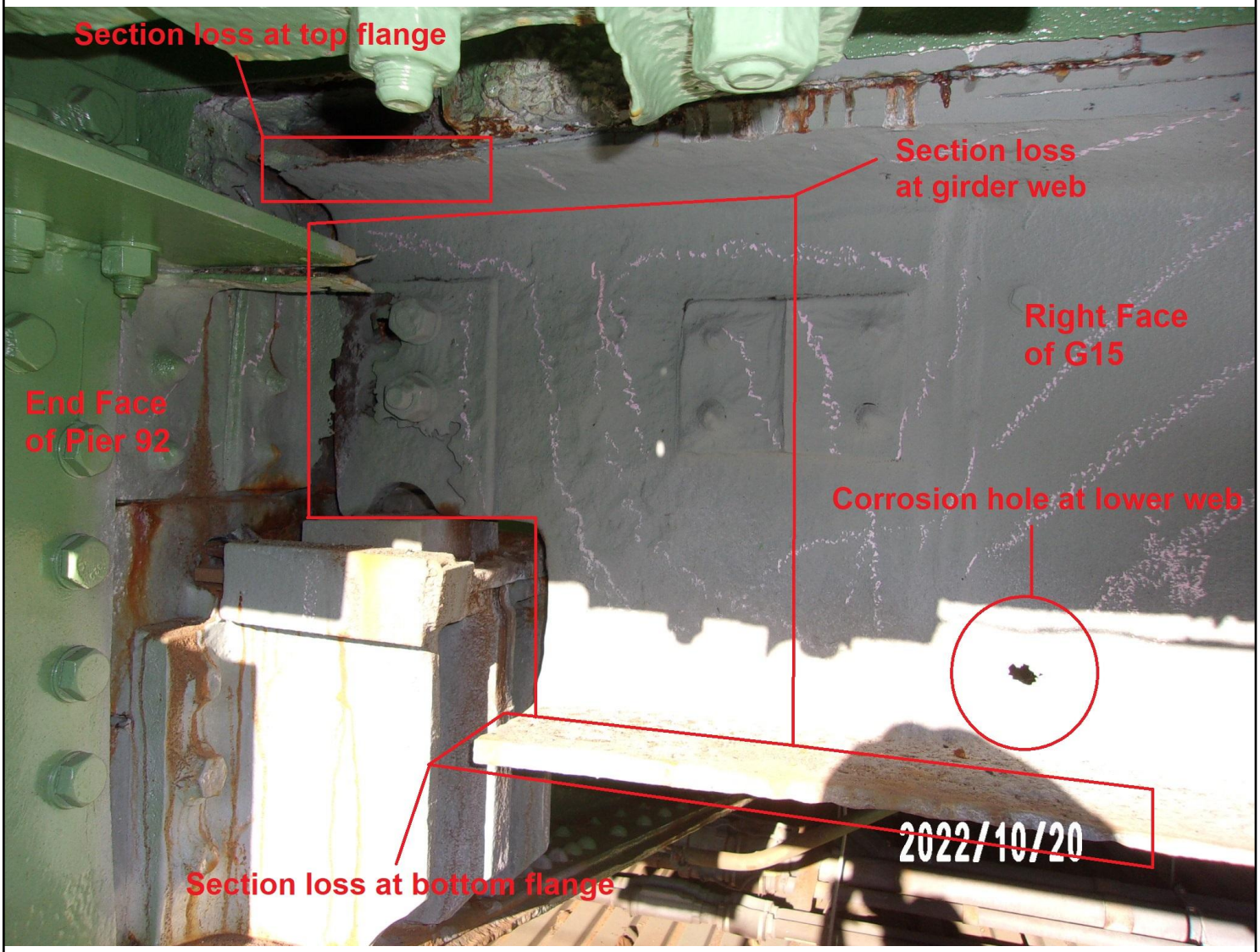
Photo Number: **7** Photo Filename: **22_113_4317.JPG**

Attachment Description: **The left face of the bearing under Girder G15 on Span 93 side of Pier 92. The end of the girder has shifted downwards slightly which is evident by guide angle breaking into two pieces at the face of the girder with 1" high difference between the guide angle pieces. Looking Right.**

Photo Number: **8** Photo Filename: **22_113_4315.JPG**

Attachment Description: **The pedestal below the bearing under Girder G15 on Span 93 side of Pier 92. Two out of three stiffener plates exhibits up to 15% section loss for the full height of the stiffeners. Looking Begin and Right.**

Photo Number: **9** Photo Filename: **22_113_4306.JPG**



Attachment Description: **The right face of Girder G15 on Span 93 side of Pier 92. The girder exhibits up to 3/16" section loss for the full web height along the guide angle with 50% section loss at the top flange and up to 25% section loss at the bottom flange. Also, the lower girder web exhibits 1" diameter corrosion hole with 30% section loss surrounding hole. Looking Left.**